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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,795	11/06/2003	Elizabeth Tai	2001P12800US01	4815

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Elsa Keller, Legal Administrator
Siemens Corporation
Intellectual Property Department
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Iselin, NJ 08830

EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,795

Applicant(s)

TAI ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24,27-32,34-41 and 44-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24,27-32,34-41 and 44-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/6/03 & 5/6/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the amendment dated December 15, 2004. Claims 24, 31, and 41 were amended. Claims 1-23, 25-26, 33, 42, and 43 are cancelled. (The examiner notes that claim numbers 1-23 should be listed as "(canceled)" in the claim listing.) Claims 24, 27-32, 34-41, and 44-49 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. It is suggested that the status of parent application "09/910,066" be updated in the specification by amendment to indicate the application is now allowed U.S. Patent No. 6,656,611.
4. The objection to claims 26 and 43 set forth in the last Office action (mailed May 28, 2004), paragraph 3, is withdrawn due to the cancellation of these claims.
5. The rejection of claims 26, 33, and 43 under 35 USC 112, first paragraph, set forth in the last Office action is withdrawn due to the cancellation of claims 26, 33, and 43.
6. The rejection of claims 26, 33, and 43 under 35 USC 112, second paragraph, set forth in the last Office action is withdrawn due to the cancellation of claims 26, 33, and 43.
7. The rejection over claims 25, 26, 33, 42, and 43 under 35 U.S.C. 103(a) as being unpatentable over Nagayama et al. (EP 0 732 868 A1) in view of Konuma et al. (US 2001/0019133) set forth in the last Office action is withdrawn due to the cancellation of these claims.

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8. Claims 24, 27-32, 34-41, and 44-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 24, 31, and 41, the term *minimize* is considered to be a relative term, which renders the claim indefinite. The term "minimizes" or "minimizing" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

9. Claims 24, 27-32, 34-41, and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayama et al. (EP 0 732 868 A1) in view of Konuma et al. (US 2001/0019133). Nagayama teaches an organic electroluminescent display panel and method for manufacturing the same. The panel has a plurality of emitting portions including a substrate, first electrode, electrical insulation ramparts projecting from the substrate, organic functional layers including at least one organic electroluminescent medium, second electrode (see abstract). Figure 3 clearly shows that the organic functional layers (8) are separated by the insulative part (7). The insulative part reads upon the "insulating structure separating the electro-luminescent organic layer into a plurality of light-emitting elements". The organic El media may include an organic hole transport layer, an organic emitting layer and an organic electron transport layer (see col. 7, lines 50-55). In the Nagayama device, pixels are formed (see col. 2, lines 12-25). The insulative structure (7) is formed on the electrode layer (3) spaced apart from each other per the instant apertures of instant claim 27. The insulating structure (7) depicted in Figure 7 reads upon the bank structure recited in instant claim 28. Insulating structure (7) further comprises an overhang portion (7a), which reads upon the overhang portion recited in instant claims 29 and

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48. Nagayama discloses depositing the layers of the light-emitting device according to the steps of instant claim 31 (see col. 4, lines 5-52) and teaches all the components of method claims 34-36, and 37-40. Nagayama teaches an insulating section (7) comprised of polyimide and silicon dioxide (see col. 8, lines 28-36) per the insulative structure of the instant claims, but fails to teach poly-siloxane as a suitable insulative material for forming the insulating section. Konuma et al. teaches in analogous art a light-emitting device comprising insulative material. Konuma et al. teaches polyimide resin and a resin containing a high molecular compound of siloxane are equivalent materials (see Konuma et al. (page 1, paragraph [0013])). It would have been obvious to one of ordinary skill in the art to have used a high molecular weight siloxane in the Nagayama device as the insulative material, because Konuma teaches high molecular weight siloxane may be used in place of polyimide as an insulative material.

Nagayama discloses vacuum deposition is used in forming the organic layers, but fails to disclose the methods of depositing the organic layer per instant claim 32. Konuma et al. teaches in analogous art that the organic EL layer may be formed by spin coating or by using ink jet methods. It would have been obvious to one of ordinary skill in the art to have used spin coating or ink jet methods for forming the Nagayama organic EL layers, because Konuma et al. teach these methods as conventional methods in the art for forming organic EL layers.

With regard to the method limitations of claims 24 and 41 these are considered to be product-by-process type limitations. See M.P.E.P. § 2113.

Response to Arguments

10. Applicant's arguments filed December 15, 2004 have been fully considered but they are not persuasive. Applicant states "the cited reference does not disclose or suggest: (1) 'poly-

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siloxane insulating structure separating the electro-luminescent organic layer into a plurality of light-emitting elements', (2) 'prior to drying, the organic layer is initially a solution that includes an organic material and a solvent', and (3) 'the poly-siloxane insulating structure minimizes the organic material clinging to sides of an aperture'." With regard to (1), the examiner maintains Nayama teaches the organic function layers (8) are separated by the insulative part (7). The insulative part reads upon the "insulating structure separating the electro-luminescent organic layer into a plurality of light-emitting elements". With regard to (2), the examiner considers the limitation requiring that "prior to drying, the organic layer is initially a solution that includes an organic material and a solvent", is a product-by-process limitation. The product claims are drawn to a final product in which a solvent is not present in the organic layer. With regard to (3), the examiner submits that a limitation drawn to the minimization of organic material clinging to sides of an aperture is not a patentably significant feature, because the degree of minimization is not compared to another poly-siloxane structure.

Applicant further argues, "the Examiner has not provided a suggestion to combine *Nagayama* and *Konuma*." In response to applicant's argument that there is no reason to combine the references, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). *Konuma* is relied upon to teach the equivalency of polyimide resin and a resin comprising a high molecular compound of silicon as insulative materials. *Nagayama* teaches an insulating section (7) comprised of polyimide and silicon dioxide (see col. 8, lines 28-36) per the insulative structure of the instant claims, but fails to teach poly-siloxane as a suitable

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insulative material for forming the insulating section. Konuma et al. teaches in analogous art a light-emitting device comprising insulative material. Konuma et al. teaches polyimide resin and a resin containing a high molecular compound of siloxane are equivalent materials (see Konuma et al. (page 1, paragraph [0013])). It would have been obvious to one of ordinary skill in the art to have used a high molecular weight siloxane in the Nagayama device as the insulative material, because Konuma teaches high molecular weight siloxane may be used in place of polyimide as an insulative material.

The rejection over Nagayama and Konuma is respectfully maintained.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**DAWN GARRETT
PRIMARY EXAMINER**

D.G.
April 19, 2005